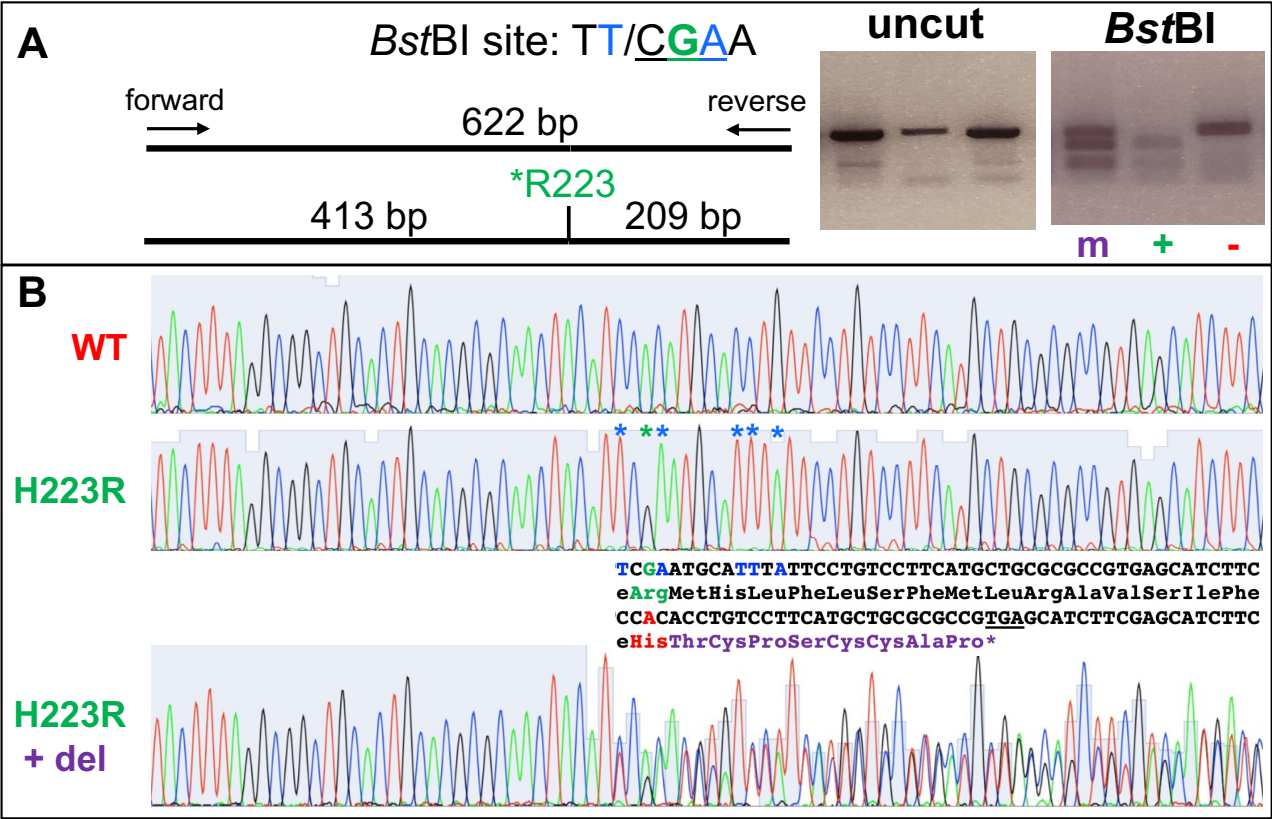
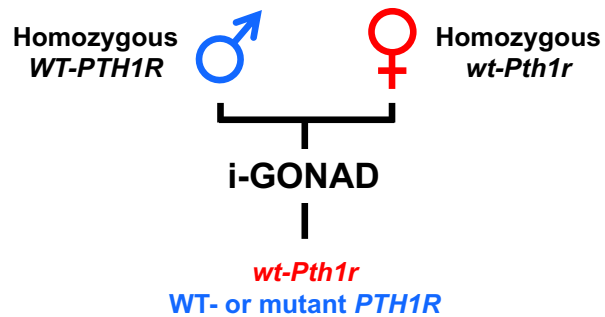


Suppl. Fig. 1



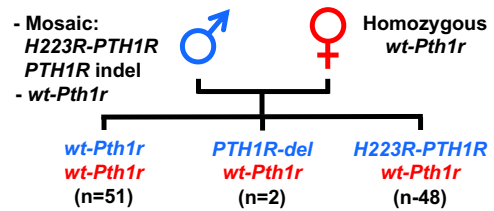
Suppl. Table 1: Homozygous “humanized” *PTH1R* males to generate *H223R-PTH1R* founders through i-GONAD



Human <i>PTH1R</i> genotypes	Litter 1 n=10	Litter 2 n=11	Litter 3 n=4	n	Phenotype	Age at death
WT alone	1	7	0	8	no	culled
Mosaic WT plus an insertion or deletion	0	1	1	2	no	culled
Only insertion or deletion	4	0	1	5	no	culled
H223R only	2	2	0	4	yes⁺	10-60 days⁺⁺⁺
Mosaic H223R plus an insertion or deletion	3*	0	1	4	yes⁺⁺	4-9 months⁺⁺⁺
No DNA sequence		1	1	2	unknown	<10 days
No phenotype or unknown	5	9	3	17		
Skeletal phenotype with the H223R mutation	5	2	1	8		

* = two of three mosaic males (#8 and #9) were used for matings that yielded F1 pups

Suppl. Table 2: Mating scheme using males mosaic for *H223R-PTH1R* and *PTH1R-del*, genotypes and sex distribution of F1 pups



homozygous <i>wt-Pth1r</i> (males)	homozygous <i>wt-Pth1r</i> (females)	<i>PTH1R-del</i> <i>wt-Pth1r</i> (males)	<i>PTH1R-del</i> <i>wt-Pth1r</i> (females)	<i>H223R-PTH1R</i> <i>wt-Pth1r</i> (males)	<i>H223R-PTH1R</i> <i>wt-Pth1r</i> (females)
30	21	2	0	30	18

	H223R mutant (H223R-PTH1R/wt-Pth1r)	Wild-type (wt-Pth1r/wt-Pth1r)	H223R mutant (H223R-PTH1R/wt-Pth1r)	Wild-type (wt-Pth1r/wt-Pth1r)	H223R mutant (H223R-PTH1R/wt-Pth1r)	Wild-type (wt-Pth1r/wt-Pth1r)
	Males+females	Males+females	Males alone	Males alone	Females alone	Females alone
Calcium (mmol/L)						
mean	2.71	3.13	2.64	3.26	2.88	2.75
SD	0.96	1.40	0.88	1.52	1.26	1.04
SEM	0.22	0.32	0.23	0.41	0.56	0.47
Median	2.73	2.77	2.60	3.04	2.99	2.77
n	19	19	14	14	5	5
p-value	0.5		0.3		0.6	

Phosphate (mmol/L)						
mean	2.84	3.12	3.10	2.99	2.38	3.51
SD	0.77	1.06	0.81	1.06	0.41	1.04
SEM	0.21	0.23	0.27	0.27	0.18	0.46
Median	2.74	3.01	2.77	3.13	2.40	3.01
n	14	21	9	16	5	5
p-value	0.4		0.4		0.7	

PTH (pmol/L)						
mean	5.45	7.99	3.63	7.79	7.26	8.54
SD	5.5	3.5	2.9	3.8	7.0	2.7
SEM	1.58	0.80	1.18	1.02	2.87	1.21
Median	2.62	7.29	2.56	6.81	3.36	8.12
n	12	19	6	14	6	5
p-value	0.01		0.001		0.4	

CTX-1 (ng/ml)						
mean	70.12	38.20	82.73	42.04	39.51	26.65
SD	79.2	32.5	88.5	26.3	39.7	47.9
SEM	16.16	6.63	21.48	6.20	14.99	19.54
Median	32.15	29.35	37.70	36.55	20.75	8.70
n	24	24	17	18	7	6
p-value	0.06		0.06		0.1	

P1NP (ng/ml)						
mean	13.39	31.44	11.50	36.16	17.71	17.27
SD	23.4	28.3	13.5	25.7	39.1	33.5
SEM	4.89	5.79	3.37	6.06	14.77	13.69
Median	2.81	24.17	6.91	31.55	1.94	3.94
n	23	24	16	18	7	6
p-value	0.003		0.001		0.2	

CTX-2 (pg/ml)						
mean	68.40	28.60	83.24	32.28	16.46	13.90
SD	64.4	18.5	65.9	18.2	6.6	12.9
SEM	15.18	4.77	17.62	5.25	3.29	7.44
Median	54.27	26.36	60.26	26.45	15.00	10.20
n	18	15	14	12	4	3
p-value	0.03		0.006		0.6	